South African Reserve Bank

A review of the rate-setting process of the Johannesburg Interbank Agreed Rate (Jibar) as an interest rate benchmark

15 November 2012

Abbreviations

BA	Bankers' Acceptance
Euribor	European Interbank Offered Rate
FMLG	Financial Markets Liaison Group
FRA	forward rate agreement
FX	foreign exchange
Jibar	Johannesburg Interbank Agreed Rate
JSE	Johannesburg Stock Exchange
Libor	London Interbank Offered Rate
MMS	Money Market Subcommittee
MPC	Monetary Policy Committee (MPC) [of the South African Reserve Bank]
NCD	negotiable certificate of deposit
Sabor	South African Benchmark Overnight Rate
Safex	South African Futures Exchange
UK	United Kingdom
US	United States of America

Glossary

Calculation Agent	The entity that takes responsibility for collating the data from the Contributors, applying the Johannesburg Interbank Agreed Rate (Jibar) calculation methodology, and releasing the derived Jibar rates at the agreed time. In the case of Jibar, this function is performed by the JSE.
Contributor	A Contributor refers to a commercial bank submitting data (bid and offer rates) to the Calculation Agent which is used to calculate Johannesburg Interbank Agreed Rate (Jibar) for various maturities.
Depo market	The domestic market for fixed bank deposits
Repo	Repurchase transaction
Strate	The licensed Central Securities Depository for the electronic settlement of financial instruments in South Africa
the Bank	South African Reserve Bank
wire services	Electronic media such as Reuters and Bloomberg

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1. Introduction

1.1 The purpose of this document is to present the findings of a review conducted under the auspices of the Financial Markets Liaison Group (FMLG) of the processes and procedures related to the Johannesburg Interbank Agreed Rate (Jibar) and how it is determined.

1.2 The FMLG is a consultative forum and represents a joint initiative between the South African Reserve Bank (the Bank) and key participants in the financial markets. It emerged from the Money Market Liaison Group, which was initiated when market participants were consulted on the modifications to the Bank's system of accommodation in 2005. The FMLG's mission is to provide, through a structure of subcommittees, a forum for consultation, information exchange, and the identification and management of challenges facing the South African financial markets, in the interest of efficient financial markets and their further development. The FMLG is chaired by the Deputy Governor responsible for the Financial Markets Department (FMD) of the Bank and meets at least twice a year.

1.3 The review revealed that while there are no fundamental concerns around the Jibar determination process, certain aspects of the process, more specifically the governance process, can benefit from enhancements and formalisation. This review, therefore, contains recommendations that will contribute towards strengthening the process of determining Jibar rates and increasing the credibility of the process.

1.4 One of the recommendations entails the establishment of a Code of Conduct, a draft of which is presented together with this review for public comment before it will be implemented

2. Background

2.1 At the beginning of 2011 the Money Market Subcommittee (MMS) of the FMLG initiated, as part of its normal work programme, a project to review the processes and procedures surrounding the determination of domestic money-market reference interest rates to ensure the continued integrity and reliability of money-market benchmark interest rates.

2.2 During the final stages of the Jibar review project in June 2012, the media reported that an international bank had been fined by the regulatory authorities in the United States (US) and the United Kingdom (UK) for manipulating the London Interbank Offered Rate (Libor). A process of intense media and parliamentary scrutiny of the Libor determination and manipulation process ensued. While the Jibar review was not triggered by the Libor scandal or any similar event, in finalising this review, international developments around similar issues, including the Wheatley Review on Libor[1] in the UK, were followed closely to help inform any possible further changes that could be incorporated into the calculation of the Jibar rate in order to enhance the credibility of the rate.

2.3 This document deals with the review of the Jibar. Once the proposed enhancements to the Jibar determination process have been implemented, the FMLG will embark on a review of the South African Benchmark Overnight Rate (Sabor).

2.4 The calculation of a South African reference rate started in the 1990s with the South African Futures Exchange (Safex) Bank Bill rate. Safex had in its suite of products Bank Bill futures which were short-term interest rate futures that the market used for hedging and managing interest rate risk at the short end of the yield curve. The daily rate was derived by using a similar polling

[1] Following the announcement of the findings against Barclays in late June 2012, the UK Government asked Martin Wheatley, Managing Director of the FSA and Chief Executive Officer-designate of the new Financial Conduct Authority (FCA), to conduct an independent review into a number of aspects of the setting and usage of Libor. The report sets out the final recommendations to the UK government, the British Bankers' Association (BBA), banks and the regulatory authorities regarding an independent review into various aspects of the setting and usage of Libor. The final report of the Wheatley Review was published on 28 September 2012.

process to the current Jibar. However, it was based on bankers' acceptances (BAs), a tradable instrument issued by a corporate but "accepted" by a bank, thereby giving it the same credit quality as the bank accepting the bill. During the 1990s, the rand market for forward rate agreements (FRAs) and swaps evolved rapidly and the need arose for a standard reference rate. The market evolved into a 3-month fixed versus floating convention for swaps because of the dominance of the 3-month maturity. The use of the BA diminished in favour of negotiable certificates of deposit (NCDs), which were more standardised instruments directly issued by banks to fund themselves. At this time, the name changed from the "Bank Bill" rate to "Jibar". As the JSE Limited (JSE) was calculating the Bank Bill rate at that time, it continued to calculate the new reference rate.

2.5 Jibar is the key short-dated money-market reference interest rate in the domestic financial markets.[2] The 3-month Jibar[3] rate is the most widely used and accepted as a short-dated interest rate benchmark.

2.6 The analogous benchmark in other currencies are the Libor and European Interbank Offered Rate (Euribor), which are both calculated and published by Thomson Reuters. The Libor and Euribor represent an estimate by banks in the London and European markets of the rates at which they believe they could borrow funds from other banks. Table 1 provides a comparison of the Libor, Euribor and Jibar.

[2] Contributors buy their own instrument from the market at the quoted bid rate and sell it to the market at the offer rate. The latter reflects the rate at which a bank funds itself in the market. When a bank lends money to customers, the rates it charges are informed by other considerations, such as the credit quality of the borrower.

[3] Although the 3-month Jibar is the most commonly used, Jibar reference rates for 1-, 3-, 6-, 9- and 12-month maturities are calculated and released on a daily basis.

Table 1: Comparison of Libor, Euribor and Jibar

	Libor	Euribor	Jibar
Calculation and publication of rates	Calculated and published by Thomson Reuters on behalf of the British Banking Association	Calculated and published by Thomson Reuters	Calculated by the JSE and published by Thomson Reuters
Number of rates published	150 Libor rates	15 Euribor rates	5 Jibar rates
Underlying info	Represents unsecured funding in the London interbank market, not based on actual transactions, but quoted as annualised interest rates	Represents daily quotes of the rate that each panel bank believes one prime bank is quoting to another prime bank for interbank term deposits within the euro zone	Represents interest rate at which banks in the SA interbank market buy and sell their NCDs, but can also be represented by rates achieved in the deposit and forward markets
Underpins financial transactions worth an estimated	USD300 trillion	Not available	R3 - R4 trillion
Guiding principles	Contributor banks are selected in line with 3 guiding principles: scale of market activity; credit rating; and perceived expertise in the currency concerned	Contributor banks can qualify for the panel if they are active players in the euro money markets in the euro zone or worldwide and if they are able to handle good volumes in euro interest rate related instruments, especially in the money market	There is no formal definition for the inclusion and/or exclusion of contributing banks
Calculation method	Trimmed arithmetic. Contributions are ranked in descending order. The highest and lowest 25 per cent are excluded. Remaining contributions are then arithmetically averaged to create a Libor quote, published daily at 11:00 on Reuters	The highest and lowest 15 per cent of all quotes collected is eliminated. The remaining rates will be averaged and rounded to three decimal places, published daily at 11:00 on Reuters	A mid-rate is calculated as a halfway point between bid and offer rates provided by contributors. The 2 highest and 2 lowest mid-rates are discarded. The rest of mid rates are averaged to provide the fixing rate, published daily at 10:00 on Reuters
Panel of banks	15 (for each of the 10 currencies)	44	8

Source: Bank of England, European Central Bank, European Banking Federation, and the JSE

3 Objectives of the review project

3.1 The daily calculation and publication of Jibar rates are important for the efficient functioning of the South African money, capital and interest rate derivatives markets. These rates are important benchmark rates in South Africa, and are used in determining the reset rate for over-the-counter swaps and FRAs. Their reliability is therefore a cornerstone of the efficient functioning of the domestic financial markets.

3.2 The purpose of this project was, therefore, to compare the rates submitted by the banks to the JSE to determine Jibar rates published by the JSE so as to establish if there were any trends or patterns of anomalies and, furthermore, to assess the soundness of the processes pursued in the daily calculation and release of the Jibar. The review had the following specific objectives, namely to

- understand the processes and procedures followed, and the factors considered by contributing banks (Contributors) in determining the daily bid and offer quotes sent to the JSE;
- review the Jibar calculation process conducted by the JSE;
- identify any trends or patterns of anomalies in the input data or process; and
- make proposals for the enhancement of the processes and procedures to ensure benchmark reference rate integrity and reliability.

4 The current Jibar calculation process

4.1 The JSE has, since the inception of Jibar, assumed the responsibility for providing the operational infrastructure in order to calculate and release the Jibar on a daily basis. The current daily Jibar calculation and release processes are as follows:

Step 1: The JSE polls Contributors who provide bid and offer rates for trading in their own instrument with 1-, 3-, 6-, 9- and 12-month maturities.

Step 2: The bid and offer rates are averaged to calculate the mid-rates.

Step 3: The two highest and the two lowest mid-rates are discarded, and the remaining mid-rates are averaged to calculate the fixing rates for the Jibar maturities.

Step 4: These rates are published daily at 10:00 on Reuters page SAFEY.[4]

4.2 The panel of Contributors consisted of ABSA, Credit Agricole[5], Citibank, Investec, JPMorgan, Mercantile Bank, Nedbank, FirstRand Bank and Standard Bank when the review process was initiated in 2011.

4.3 Considering the fact that there are currently only eight Contributors, the policy to discard the two lowest and two highest quotes results in the announced average comprising quotes from four banks only.

4.4 There is a distinct difference between Jibar and Libor. Jibar is the key short-dated money-market reference interest rate in the domestic financial market, and represents the interest rate at which banks in South Africa buy and sell their own NCDs over specific maturities and, to a lesser extent, the cost of

[4] At the time of the review, the publication time was 11:00. It was changed to 10:00 from 1 October 2012.

[5] Credit Agricole stopped contributing towards the Jibar in August 2012 as it had surrendered its banking licence.

funding in the foreign exchange (FX) forward and the domestic market for fixed bank deposits (Depo markets). It represents actual quoted rates on money-market instruments that can be traded in the interbank and broader domestic market. The 3-month Jibar mid-rate is the most widely used and accepted as a short-dated interest rate benchmark. Libor, in turn, represents an estimate by banks in the London market of the rates at which they believe they could borrow funds from other banks, in various currencies. (For further comparison, refer to Table 1, on page 8 of this report).

5 Investigations and consultations with Contributors

5.1 The review process also included consultation with the Contributors to ensure that all aspects related to the determination of all Jibar maturities were covered. These discussions provided insight into the differences in the approaches followed by Contributors in determining the rates to submit to the JSE. The feedback from these consultations was consolidated and some shortcomings in the current processes became evident. These shortcomings are highlighted in the paragraphs below and reflect, among other things, the lack of explicit guidance with respect to a standardised instrument type to be used by Contributors in the submission process.

5.2 The relatively small number of Contributors increases the impact of any one particular contributing bank's rates on the outcome of the Jibar. At present there is no formal process or procedure to include or remove Contributors from the panel of participants, nor is there a specified minimum number of Contributors.

5.3 While Contributors generally submit bid and offer rates as informed by their particular interest rate views and funding requirements, some distinct differences were observed among the different groupings of banks with respect to the type of instrument that is used in the rate submission process. Some local banks indicated that their rates submitted to the JSE were determined by the liquidity of the market and their own funding requirements, and represented the NCD rates as displayed on their wire services screens (i.e., electronic media such as Reuters and Bloomberg). Other local banks and local branches of international banks consider rates published by larger banks, as well as market conditions in the Depo market.

5.4 Depo rates are normally quoted at, or slightly above, the NCD offer rates as NCDs are tradable instruments in the secondary market, while Depos are not. Furthermore, the cost of trading NCDs is higher than Depos as NCDs are dematerialised and fees are levied by Strate, the licensed Central

Securities Depository for the electronic settlement of financial instruments in South Africa.

5.5 International banks also consider rates in the FX forward market when submitting rates for Jibar. Changes in the liquidity experienced in the various segments of the money market may result in variances in spreads between the NCD, Depo and FX forward rates, particularly at year-end and other reporting periods. This translates into the range of rates received (highest rate received minus the lowest rate received) from Contributors to be wider than what would have been the case if only NCD rates were considered.

5.6 In general, the large local banks differentiate pricing of the NCDs and Depos. These banks dominate the NCD market in South Africa, while other Contributors tend to be more active in Depos with little or no trading in the NCD market. In these cases it could be assumed that their contributions towards Jibar are representative of prices in the Depo and FX forward markets.

Table 2: Current list of Contributors

Bank grouping	Bank	Quote NCD prices on wire services
Local banks	ABSA	Yes
	Investec	Yes
	Nedbank	Yes
	FirstRand	Yes
	Standard	Yes
International banks	Citibank	Yes
	JPMorgan	No
	Mercantile	Yes

5.7 The internal procedures and methodologies followed when submitting rates to the JSE differ between the Contributors. Apart from the methodologies referred to in paragraphs 5.3 to 5.5 (Table 2), the following differences were observed:

- At one bank, the determination of the rates was the responsibility of two different functional units within the bank. The determination of the bid rate was performed by the secondary market trader, while the offer rate was determined by the primary market trader.

- The setting of the bid and offer rates at another bank was the responsibility of the team responsible for the balance-sheet management of the bank. It was indicated that as “a matter of policy”, this responsibility was kept “far away” from any of the trading units within the bank.

5.8 These findings underlined the need to have standardised instrument(s) and a mutually agreed methodology to be applied when contributors submitted data for inclusion in the daily Jibar calculation, and to trade at screen-quoted prices.

5.9 Strate requested that the JSE consider publishing Jibar rates earlier than 11:00. This request arose from timing problems encountered after the money-market dematerialisation. Transactions in the money market settle on a T+0 basis and therefore all deals are required to be finalised by 13:00 every day. Sufficient time is required to complete the necessary process, including the calculation of Jibar, hence the request to publish Jibar earlier, at 10:00. Agreement on this proposal was reached after consultations with the Contributors and other stakeholders. The JSE started publishing Jibar rates at 10:00 from 1 October 2012.

5.10 In terms of screen transparency, it transpired that only six of the nine Contributors (before the exit of Credit Agricole) polled in 2010 had dedicated screen pages to display their rates to clients. These banks indicated that the screens displayed their trading rates[6] and, as such, the rates submitted by them towards Jibar were transparent and tradable. Contributors that do not

[6] The main Jibar benchmark is 3 months but some financial instruments are also linked to the 1-, 6-, 9- and 12-month Jibar. Some contributors not only quote NCD rates for the standard Jibar maturities, but also provide pricing for non-standard NCDs. These include NCDs at monthly intervals up to 12 months (e.g. 2-, 4-, 5-, 7-, 8-, 10-, and 11-month terms), as well as maturities up to five years. These latter NCDs are normally quoted as coupon-bearing NCDs.

have screens to quote rates on tradable instruments could be perceived as a weakness in the current Jibar contribution methodology.

5.11 The presence of screen rates does not necessarily guarantee full pre-trade transparency. This is mainly due to the fact that quoted rates are dependent on transaction size and changing market conditions. In addition, it may not be possible for smaller contributors to have an eight-hour presence on the screen due to resource and trading constraints.

5.12 In response to the request received from the MMS in 2011 to assist in the Jibar review process, the JSE analysed the data,[7] which was used in the calculation process. The data contributed during the period 2003 to 30 June 2012 were subsequently collated and examined in order to look for discrepancies or anomalies. This data were also validated by the Bank.

[7] The data submitted by Contributors for the calculation of Jibar rates are available from the JSE on request.

6. Process followed to analyse input data

6.1 As part of the analysis process, the data were examined to identify any trends or patterns of anomalies. The following assessments were made:

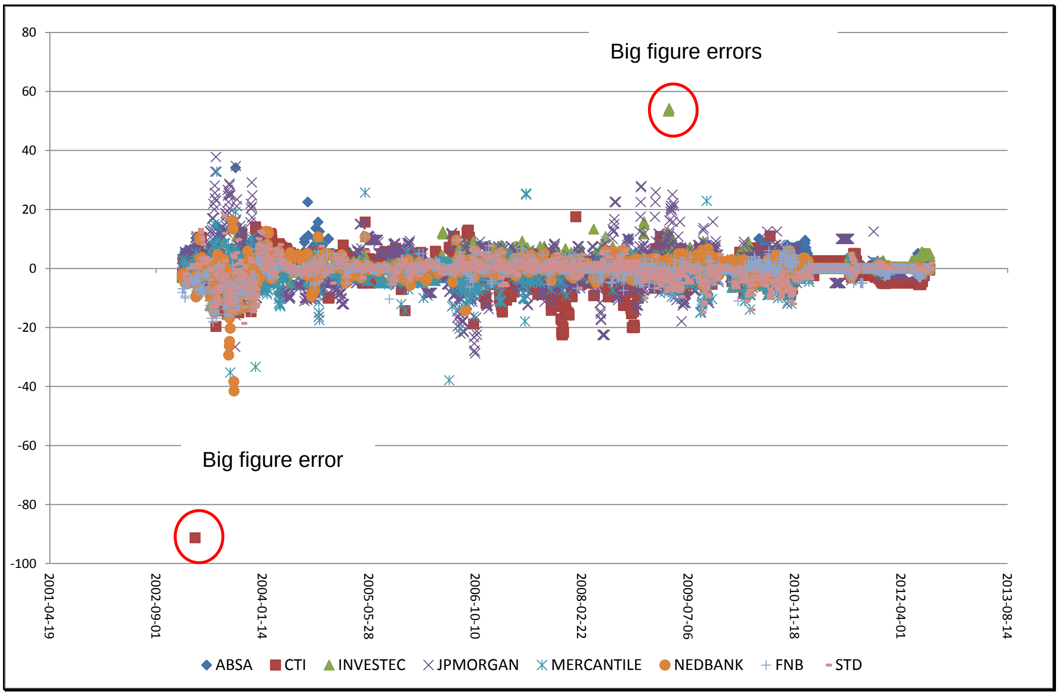
6.1.1 **The spread of Contributors' mid-rates around the released Jibar rates:** The results revealed that the Contributors provided mid-rates that were evenly distributed around the released Jibar. The pattern observed reflected Contributors' independent views on rates prevailing at the time.

6.1.2 **The average difference between the Contributors' mid-rates and the released Jibar rates:** The average difference between mid-rates and the released Jibar for the different Contributors was in line with money-market rates and trends during the evaluation period. The average deviation of rates submitted by Contributors was viewed to be acceptably small (Figure 1).

6.1.3 **The number of times that the Contributors' mid-rates were greater than 20 basis points away from the released Jibar rates:** A 15 to 20 basis point deviation from the released Jibar rates is viewed as acceptable for the South African market. This should be viewed in context that the repurchase (repo) rate[8] varied between 5,0 and 13,5 per cent during the review period. Most Contributors provided mid-rates that were within a tolerance range of +/-20 basis points of the released Jibar rates over the entire assessment period of nine years (2003 to 2012). However, the instances where Contributors exceeded the 20 basis-point tolerance level were closely aligned with the run-up to Monetary Policy Committee (MPC) announcements. These incidents were accepted as normal market fluctuations, reflecting a tradable rate for the particular Contributor(s) at that point in time.

[8] The policy rate of the central bank at which it lends to commercial banks. This is undertaken on the basis of repurchase agreements.

Figure 1: Difference between mid-rates and Jibar



6.2 The results of these assessments should, furthermore, be viewed in the context of the following:

- The data examined covered the period from 2003 to 2012, the latter part of which encompassed a period of significant uncertainty and volatility in the global markets, including the subprime crisis in the US, and the sovereign-debt crisis in Europe. This was a period characterised by increased volatility in interest rates driven by the dynamics of the financial markets. Cyclical factors such as month- and year-ends were considered, explaining variances at times. These variances were often exacerbated by extreme volatility in the FX forward market over these periods.
- Rates submitted were most volatile in the run-up to the MPC meetings that yielded 100 basis point cuts, which confirms the independent views held by Contributors.
- The highest and lowest two reference rates submitted were excluded from the averaging process.

- A combination of NCD, FX forward and Depo rates (as explained in paragraph 4.2) were considered by the Contributors in their submissions.

6.3 All the contributing banks confirmed that Jibar reflected actual rates of return on short-dated money-market instruments. This rate is best represented by the NCD markets, but could also be represented by the rates achieved in the Depo and FX forward markets. Although there are no formalised or stipulated rules for the determination of the Jibar rate, the NCD rate is largely accepted as the market that underpins Jibar. The recommendations proposed in this review aim to enhance the credibility of the Jibar rate, as a reference rate in the domestic market.

6.4 Based on the above findings, the study concludes that although incidents of anomalies were identified, no trends or patterns of anomalies were observed. Although the current Jibar process does not allow for explicit guidelines with respect to instrument types, quality control or auditing of the input provided by the Contributors, there is no record of any complaints lodged with regard to any aspect of the Jibar process. Minor issues were reported relating to system challenges and to human error, which comprised big-figure mistakes (typing errors), and bid and offer inversions. These issues were, however, regarded as operational errors or limitations and should not be interpreted as deliberate manipulation of rates. These incidents were regarded as tolerable, with limited impact on the average rate due to the exclusion rule. Therefore, the Jibar rate was found to be reflecting underlying market trends.

6.5 The final report of the Wheatley Review of Libor sets out the final recommendations to the UK government, the British Bankers' Association (BBA), banks and the regulatory authorities regarding an independent review into various aspects of the setting and usage of Libor. The review reached three fundamental conclusions that underpin its recommendations. First, there is a clear case in favour of comprehensively reforming Libor, rather than replacing the benchmark. Second, transaction data should be explicitly used to support Libor submissions. Third, market participants should continue to play a significant role in the production and oversight of Libor.

6.6 Drawing on these three fundamental conclusions, the report presents a ten-point plan on the comprehensive reform of Libor. The plan for the reform of Libor comprises issues related to the (i) regulation of Libor; (ii) institutional reform; (iii) rules concerning Libor; (iv) immediate improvement of Libor; and (v) international co-ordination. The detail of the plan suggests, among other things, the following:

6.7 The BBA should transfer responsibility for Libor to the new administrator, who will be responsible for compiling and distributing the rate, and for providing credible internal governance and oversight. This should be achieved through a tender process.

i The new administrator should fulfil specific obligations as part of its governance and oversight of the rate, having due regard to transparency and fair and non-discriminatory access to the benchmark.

ii Submitting banks should immediately look to complying with the submission guidelines presented in the report, making explicit and clear use of transaction data to corroborate their submissions.

iii The new administrator should, as a priority, introduce a code of conduct for submitters.

iv The BBA should cease the compilation and publication of Libor for those currencies and tenors for which there is insufficient trade data to corroborate submissions.

v The BBA should publish individual Libor submissions after three months to reduce the potential for submitters to attempt manipulation and to reduce any potential interpretation of submissions as a signal of creditworthiness.

vi Banks, including those who do not currently submit to Libor, should be encouraged to participate as widely as possible in the Libor compilation process.

vii Market participants using Libor should be encouraged to consider and evaluate their use of Libor, including the consideration of whether Libor is the most appropriate benchmark for the transactions that they undertake.

viii The UK authorities should work closely with the European and international community, and contribute fully to the debate on the long-term future of Libor and other global benchmarks, establishing and promoting clear principles for effective global benchmarks.

7 Recommendations stemming from the review of the Johannesburg Interbank Agreed Rate (Jibar) determination process

7.1 The review process highlighted some shortcomings in the Jibar process. Proposals to address these are discussed in the paragraphs below.

7.2 Code of Conduct

7.2.1 A Code of Conduct for Contributors is recommended in order to provide a framework for determining Jibar, and guide the behaviour of Contributors and the Calculation Agent. The Code of Conduct should also formalise a proper governance process. The Code of Conduct, should, therefore,

- provide for the establishment of a panel of Contributors;
- be a written document with the contributors committing in writing to adherence to the content;
- include the responsibilities assigned to the relevant regulatory authorities with respect to the oversight of the Jibar determination process;
- define eligibility criteria for the inclusion and exclusion of banks to the panel of contributors;
- outline the processes to determine benchmark rates;
- clarifies which bid and offer rates will be submitted provide for a dispute resolution mechanism; and
- provide for consequences of non-adherence to the Code of Conduct.

7.3 Screen-based transparency

7.3.1 It is recommended that all Contributors should post trading rates on their wire services screens. This will ensure transparency and also allow the persons responsible for the rate submission to compare with those displayed on screens. The quoting of rates on screens would also introduce more efficient technology in collecting the bid and offer rates from Contributors.

7.4 Post-release transparency

7.4.1 At present, a spreadsheet containing details of the rates submitted for calculating the Jibar is made available to Contributors by the JSE. The spreadsheet contains the following information:

- Bid and offer rates for each contributing bank, together with the bank's name
- An indication of the rates excluded as highest and lowest
- The released Jibar rate.

7.4.2 It is recommended that this information submitted by the Contributors be made available on a JSE screen to the market in general, and not only to Contributors.

7.5 Validation of rates submitted by contributors

7.5.1 It is recommended that data received by the JSE, for inclusion in the Jibar calculation, be validated by them for big figure errors and for data inversions.

7.5.2 Since NCD trades are reported to Strate, it is recommended that Strate extract the required data as an additional source of comparison to validate the rates submitted by the Contributors.

7.6 It is recommended that the name be changed from the "Johannesburg Interbank Agreed Rate" to the "Johannesburg Interbank Average Rate"[9] as this clarifies the calculation methodology.

[9] Current contributors to the determination of Jibar rates, the Bank and the JSE did not object to the changing of the name from "Johannesburg Interbank Agreed Rate" to "Johannesburg Interbank Average Rate".

8 Conclusion

8.1 The Jibar review project has revealed that while the process of determining Jibar rates in the South African market was found to be fundamentally sound and reflective of underlying market trends, and that there does not appear to have been deliberate manipulative practices, there are certain shortcomings that need to be addressed in order to strengthen the process, and to enhance the reliability and credibility of this benchmark rate. The current Jibar process does not provide explicit guidelines with respect to instrument types, quality control or auditing of the inputs provided by the Contributors. As part of the recommendations contained in this report, a key feature of the enhancements will be a Code of Conduct to be entered into by participants in the determination process of Jibar rates.

8.2 Together with this report, a draft Code of Conduct will be released for public comment. The Code of Conduct deals with the eligibility criteria for inclusion or exit from the reference rate panel, operating rules, the governance framework, and makes provision for dealing with complaints and disputes. Following consideration of the input received during the consultation period, the Code of Conduct will be formally adopted and implemented, and the final version be made public.

8.3 The FMLG will continue to monitor global developments regarding regulation of reference rates, and especially the impact of financial market and bank regulations on the instruments used in the calculation of reference rates, and propose amendments where necessary.